Appendix F
Reclamation Plan

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APPENDIX F – RECLAMATION PLAN

1.0 Introduction

The intent of the Reclamation Plan is to reestablish a vegetative cover that is similar to pre-construction conditions and adjacent vegetation communities. The disturbed areas that must be addressed by the Reclamation Plan for the Proposed Project include tower pad sites and tensioning/pull sites.

1.1 Objectives

The objectives of this plan would be to:

- Implement best management practices to reduce soil disturbance and erosion as specified in the NPDES Permit;
- Restore the topography and hydrology features (if present) to pre-construction topographic conditions; and
- Control introduction and increases in alien and noxious plant species resulting from project activities.
- Implement best management practices to accelerate restoration of disturbed areas to healthy, productive and diverse habitats for native species.

1.2 Implementation

The Imperial Irrigation District (IID) would incorporate the final Reclamation Plan in the COM Plan, which would be provided to the responsible construction contractor(s) and subcontractor(s).

1.2.1 Transmission Line Reclamation

Reclamation activities will be conducted on disturbed construction areas including tower pad locations, staging areas and stringing/tensioning sites. The following prescriptions would be implemented after final construction activities have been completed.

- Any new road construction and active construction areas would be graded in such a manner that no new berms would be created from the soil spoils discarded from the blading equipment.
- To the maximum extent possible, all shrubs and cacti within non-graded impact areas would be identified and flagged prior to initiation of construction for protection against trampling or removal. In all other areas, only the crushing of vegetation would be permitted unless grading is absolutely necessary.
- If soil is to be excavated or graded, the A horizon and portions of the B horizon (approximately the top 4 to 8 inches) would be salvaged and stockpiled separate from subsoil layers. This action would not be applied to any spur road construction. Subsurface soils, if excavated, would be stockpiled separately and both identified and protected from loss during the construction phase of the project.

- Subsurface soils, if excavated, would be used as initial fill for disturbed sites. Following this, salvaged topsoil would be spread on the disturbed area and raked with a narrow-toothed spike or similar equipment to create imprinting or micro-catchment depressions for water retention and seed collection. No mulch would be applied in order to eliminate any barriers to seed deposition from wind dispersal and possible introduction of alien and noxious plant species.
- Whenever possible, suitable cacti and shrubs would be salvaged and replanted at the end of construction.
- Following construction, disturbed areas would be restored to the original pre-construction topographic contours.
- Where hydrologic features and/or banks are disturbed, the original surface channel hydrologic features would be recontoured to approximate pre-construction contours and bank slope margins would be backfilled.
- Compacted soils in construction areas would be ripped to a depth of 4 to 8 inches by a chisel, plow, disc, or other type of equipment to improve moisture permeability between the soil/spoil interface.
- No new seed would be broadcast or planted. A sufficient seed bank exists in the first several inches of soil to revegetate a disturbed desert site.
- Seed capture and propagation would be encouraged by mechanical pitting and imprinting.
- Where necessary (e.g., unstable soils, steep slopes), erosion control measures, including contouring, would be used to prevent erosion and sedimentation until vegetation becomes established.
- If vegetation has been cleared from a construction area, it wouldl be respread within the reclaimed area to increase soil moisture and provide a catchment for wind dispersed seeds.

1.2.2 Noxious Weed Species

The control of noxious weed species can be achieved through proper revegetation using appropriate management practices during transmission line construction as well as reclamation of the disturbed areas. Measures associated with limiting the impact of noxious weed species are provided as follows:

- Construction supervisors and managers would be educated on weed identification and the importance of controlling and preventing the spread of noxious weed species infestations.
- Disturbed construction areas would be reclaimed as soon as possible after construction in the area is completed.

- Before beginning reclamation activities, previously identified noxious weed infestations would be controlled through acceptable mechanical (e.g., topsoil excavation and removal), cultural, or herbicide applications.
- Clearing and grading equipment would have the tires, axels, frame, running boards, under carriages, and soil holding areas washed and cleaned to prevent noxious weed species transport to unaffected areas.

1.3 Restoration Success Criteria and Post-Construction Monitoring

Restoration success criteria are defined as factors to evaluate the success of the post-construction reclamation, control the spread of noxious weeds, and effectiveness of erosion control measures.

Post-construction monitoring would continue following reclamation until success criteria were met. If post-construction monitoring results indicate that project-affected sites were trending toward successfully meeting soil and noxious weeds criteria, monitoring may be conducted less frequently (e.g., every three years) subsequently, until success criteria were met.

1.3.1 Reclamation of Temporary Disturbance Areas

Reclamation success would be evaluated by comparing project-affected sites with pre-construction conditions and/or adjacent areas in terms of final grading and removal of berms, recontouring to approximate pre-construction contours, removal of noxious weed species, and relief of all compacted soils. The reclamation of sites would be considered successful if they are within a specified percentage of the mean native species composition and vegetation cover of the reference site(s). The reference sites would be either the project-affected site as recorded during pre-construction conditions (if known) or representative areas which have the same target plant community adjacent to the affected site.

1.3.2 Erosion

The effectiveness of erosion control measures would be evaluated by noting particular site conditions, including soil movement and downslope sedimentation, surface vegetative detritus (litter) movement, flow pattern development, rills and gullies, wind-scour depressions, and plant root system exposure.

If the conditions listed are present, it would be assumed that project-related erosion is occurring, and options for remedial measures would be evaluated and implemented as needed. Erosion control measures would be considered successful when no project-related erosion is evident five years following project implementation.

1.3.3 Noxious Weed Monitoring Plan

Monitoring of noxious weed populations would be conducted annually until the weed abatement success criteria have been met. Noxious weed surveys would be conducted less frequently (e.g., every 3 years) if survey results indicate weed abatement criteria have been met. The monitoring

would be conducted during the growing season for most weeds, generally between late March and mid-May. Lists of noxious weeds would be obtained from the BLM Field Office and/or the California Department of Food and Agriculture - Noxious Weed Species list.

Surveys would be conducted in areas disturbed during construction on foot and/or by vehicle within the construction corridor, along spur roads and stringing and tensioning sites. Species names and locations of noxious weed infestations would be mapped (e.g., on USGS 7.5-minute quadrangle maps, or aerial photographs, and/or using a GPS) and transferred to an updateable GIS database. Photographs would be taken of treated populations prior to treatments and one year following treatments. Infestations would be included on the maps at the following levels:

- Satellite Populations – Defined as very small infestation areas (less than 25 square feet), which have only a few individual plants and are found apart from dense or large weed populations.
- Infestation Sites – Defined as a site in which a minimum of 25 square feet is populated by a weed species. Densities of these weed populations would be estimated as high (>50 plants), medium (10-50 plants), or low (<10 plants), based on the average number of plants per 25 square feet (densities can be defined differently for different weed species, as appropriate).

Noxious weed management would be considered successful if existing noxious weed infestations in areas disturbed by construction were no greater in density and extent one year following construction than they were surveyed prior to construction.